



Funded by the U.S. Department of Agriculture Food Stamp Program, an equal opportunity employer and provider, through the California Nutrition Network for Healthy, Active Families. For information about the California Food Stamp Program, please call 1-800-952-5253.

The California 5 a Day Campaign is administered in part by the Public Health Institute and led by the California Department of Health Services in cooperation with the National 5 A Day Partnership.

For more information about the California Nutrition Network and the California 5 a Day Campaign, please call (916) 449-5400 or visit our Web site at:

www.ca5aday.com

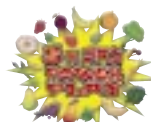
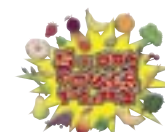
References

1. Hyson, D., *The health benefits of fruits and vegetables: A scientific overview for health professionals*. 2002, Produce for Better Health Foundation: Wilmington, DE. p. 1-20.
2. U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.
3. U.S. Department of Health and Human Services, *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity, Fact Sheet: Overweight in Children and Adolescents*. 2002: Rockville, MD: DHHS.
4. Centers for Disease Control and Prevention and National Center for Health Statistics, *Health, United States, table 71: Overweight children and adolescents 6-19 years of age, according to sex, age, race, and Hispanic origin: United States, selected years 1963-65 through 1999-00* (revised on 1/14/03). 2002. p. 215.
5. Keihner, A., Foerster, S., Sugerman, S., Oppen, M., & Hudes, M. A *Special Report on Policy Implications from the 1999 California Children's Eating and Exercise Practices Survey*. The California Endowment, Sacramento, CA: May, 2001 (Revised August, 2002). Available at <http://www.ca5aday.com/research/images/final%20policy%20report%20PDF%20-%207%2025%202002.pdf>.
6. California Physical Fitness Testing 2003: Report to the Governor and Legislature, California Department of Education Standards and Assessment Division, November 2003.
7. California Department of Health Services. 2000 California Teen Eating, Exercise, and Nutrition Survey. Unpublished data tables.
8. California Department of Health Services. (2002). *California County Food Assistance Binder* [Online]. Available: http://www.dhs.ca.gov/ps/cdic/cpns/research/food_assist_02.htm
9. Rosenbloom AL, et al., *Emerging epidemic of type 2 diabetes in youth*. Diabetes Care, 1999. 22(2): p. 345-54.
10. Pinhas-Hamiel O, et al., *Increased incidence of non-insulin-dependent diabetes mellitus among adolescents*. The Journal of Pediatrics, 1996. 128(5): p. 608 - 615.
11. Drenowski, A. & Specter, S.E. *Poverty and obesity: the role of energy density and energy cost*. Am J Clin Nutr 2004; 79:6-16
12. California Department of Education, Educational Demographics Unit. <http://data1.cde.ca.gov/dataquest/>. Statewide data used from year 2002-2003.
13. Keihner, A. & Hudes, M. Trends from the California Children's Healthy Eating and Exercise Practices Survey (1999-2003): Changes in campaign recall, knowledge, behavior, and body mass index. 2004 American Public Health Association Annual Meeting, Washington D.C., Nov. 2004.

Building Partnerships that Work for Children

California Nutrition Network and California 5 a Day Campaign

Cancer Prevention and Nutrition Section
California Department of Health Services

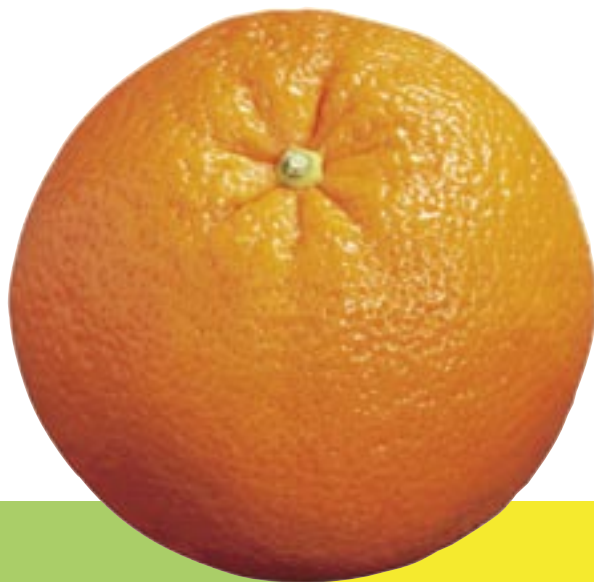




Actress, singer, and *5 a Day—Power Play! Campaign* spokesperson Lalaine is featured in new television and radio spots encouraging kids to eat their *5 a Day* and get power play.



The *5 a Day* message is reinforced through food preparation and taste testing.



The Cancer Prevention and Nutrition Section (CPNS) designs and operates large-scale programs that focus on healthy eating, physical activity, and food security. It works in partnership with other state agencies, non-profits, and businesses to coordinate efforts and mobilize new energy for kids.

Why is the Cancer Prevention and Nutrition Section concerned about children’s health?

Healthy eating helps children grow, develop and do well in school, and it reduces their future risk of chronic disease.¹ Regular activity helps children improve strength and build healthy bones and muscles, control weight, reduce anxiety, and build self-esteem.² A healthy diet and physical activity also help children maintain a healthy weight³, making these behaviors increasingly important as rates of childhood overweight rise.⁴ California research shows serious health problems among school-age children:

- **Elementary School:** Only one fifth of California’s 9- to 11-year-old children eat the recommended 5 daily servings of fruits and vegetables and over one third of these children are overweight or at risk for overweight.⁵ Furthermore, over three quarters of fifth-graders fail to meet minimum physical fitness standards.⁶
- **Middle School:** Among California’s 12- and 13-year-olds, 49% of girls and only 36% of boys eat the recommended daily servings of fruits and vegetables and over one quarter of both girls and boys are overweight or at risk for overweight.⁷ Nearly three out of four seventh-graders fail to meet minimum physical fitness standards.⁶

- **High School:** Among 14- and 15-year-olds, 25% of boys and 39% of girls eat the recommended daily servings of fruits and vegetables. Over one quarter of boys and nearly one fifth of girls are overweight or at risk for overweight.⁷ Three out of four ninth-graders fail to meet minimum physical fitness standards.⁶
- Among 16- and 17-year-olds, only 24% of boys and 37% of girls eat the recommended daily servings of fruits and vegetables. One quarter of boys and over one fifth of girls are overweight or at risk for overweight.⁷

Also of concern is that the highest rates of overweight and obesity tend to occur among population groups with the highest poverty rates.⁸ Diabetes rates have been rising with obesity rates. Type 2 diabetes, previously considered an adult disease, has increased dramatically in children and adolescents.^{9,10} High-calorie foods made with white flour, added sugars, or fats are frequently the cheapest available options. Poverty and food insecurity are associated with low food expenditures, low fruit and vegetable consumption, and lower quality diets.¹¹

Clearly, diet, physical activity, and food security are important issues for California’s 6.2 million school-age children, nearly half of whom are from households with incomes low enough to qualify them for the free and reduced-price meal program. These children represent a diverse variety of ethnic and racial groups, including 45.2 percent Hispanic/Latino, 33.7 percent White, 8.3 percent African American, and 8.1 percent Asian.¹²



Cafeterias support classroom learning by offering a variety of fruits and vegetables.



Youth organizations conduct hands-on activities that encourage kids to eat fruits and vegetables.



Children make and sample fruit kabobs during a Harvest of the Month activity.

How is the Cancer Prevention and Nutrition Section addressing the needs of California's children?

The **California Nutrition Network for Healthy, Active Families** (Network) aims to create innovative partnerships so that low-income Californians are empowered to adopt healthy eating and physical activity patterns. With the *California 5 a Day Campaign*, the Network partners with community-based experts throughout the state to increase Californians' daily consumption of fruits and vegetables to at least 5 to 9 servings, increase daily physical activity to at least 30 minutes for adults and 60 minutes for children, and achieve full participation in federal nutrition assistance programs.

The **California Children's 5 a Day—Power Play! Campaign** is a statewide social marketing initiative designed to motivate and empower California's nearly one million 9- to 11-year-old children to eat 5 or more servings of fruits and vegetables and be physically active for at least 60 minutes every day, and to create environments in which practicing these behaviors is both easy and socially supported. The Campaign is funded by the Network to target low-income children. It received additional funding during 2002-2003 from the California Department of Food and Agriculture (CDFA) to expand its reach to middle-income children.

How do these programs influence children's fruit and vegetable consumption and physical activity levels?

CPNS has established a strong infrastructure of community-driven programs, supported by state-level activities, that work together to influence children's health. A diverse array of state- and local-level partnerships enhances these efforts.

With Food Stamp Program dollars, the **Network** funds 95 school districts reaching 1,833 low-income schools, 37 after-school programs, 22 County Health Departments, 11 County Offices of Education, 3 city governments, 3 Parks and Recreation departments, 4 First 5 Children and Families Commissions, 3 Healthy Cities, 15 faith-based outreach organizations, 5 Indian/Tribal communities, and 11 regional collaboratives throughout the state. The Network-funded projects have taken a variety of unique approaches to address physical activity and healthy eating among children, including activities as simple as making fruits and vegetables aesthetically appealing to involving children in school-wide ceremonies, such as painting nutrition murals or assembling the largest bowl of salsa ever made.

The Network's 95 school districts involve 1,833 low-resource schools, over 1.2 million students, and at least 8 million children, parents, and community members each year.

The **5 a Day—Power Play! Campaign** works to influence knowledge, attitudes, and individual behavior change, as well as social norms, the environment, and policy. The Campaign's eleven regional lead agencies bring the 5 a Day and physical activity messages to 9- to 11-year-old children and their families through six community channels:

- schools, including classrooms, cafeterias, and school gardens;
- community youth organizations, including after-school, summer programs, and clubs;
- farmers' markets;
- supermarkets, including chains and independent markets;
- restaurants/food services; and
- media, including advertising and public relations.

Each year, the *Campaign* reaches approximately half of California's 460,000 low-income 9- to 11-year-old children with *5 a Day—Power Play!* interventions. This reach is augmented by media and public relations activities achieving over 50 million consumer impressions annually. The *Campaign* currently involves approximately 650 schools, 3,000 teachers, 1,100 community youth organization sites, and 500 retailers.

During 2003, CDFA funding from the Buy California Initiative allowed the *Campaign* to reach an additional 52,000 middle-income children with educational activities and enhance the total reach of its educational and promotional activities by 49 percent over the previous year.



Do these programs work?

A large-scale evaluation of the *5 a Day—Power Play! Campaign* indicated that the Campaign, when implemented through schools alone, positively influenced children's knowledge and attitudes, and increased fruit and vegetable consumption by 7 percent. When a multi-channel, community-wide approach supplemented the school activities, fruit and vegetable consumption increased 14 percent. The Campaign's current design is based upon the multi-channel approach proven successful through the study.

The *California Children's Healthy Eating and Exercise Practices Survey*, a statewide survey of 9- to 11-year-old children, provides dietary and activity information and helps to guide the Campaign's future direction. Preliminary

analysis of the most recent data indicates that, from 1999 to 2003, recall of the *California Children's 5 a Day—Power Play! Campaign* nearly doubled, and knowledge of the recommended fruit and vegetable intake rose concurrently. More importantly, fruit and vegetable consumption among children residing in low-income households increased dramatically from 3.4 to 4.1 servings (approaching statistical significance at $p=.066$).¹³ CalCHEEPS also showed that children participating in the school meal program eat more fruits and vegetables, regardless of their income.⁵

Techniques used by schools participating in the Network include:

- Harvest of the Month, linking the classroom, cafeteria, and community
- guest chefs in the classroom
- school gardens
- art contests
- taste testings
- story telling
- farmers' market tours
- Walk to School Day
- produce patches
- Nutrition Olympics events
- farm-to-school programs
- agricultural days
- nutrition operas
- cooking classes
- classroom-based educational activities, including *5 a Day—Power Play!*



Key Cancer Prevention and Nutrition Section partners

CPNS has long-established partnerships with sister state programs and federal agencies.

- Since the mid-1980s, CPNS has partnered closely with the **California Department of Food and Agriculture** to promote fruits and vegetables through both the *Network* and *5 a Day Campaign*. In 2002-2003, CDFA allocated \$1.9 million of its federal Specialty Crop Block Grant to the *5 a Day—Power Play! Campaign* through its Buy California Initiative. These funds enabled the *Campaign’s* 11 regional lead agencies to expand their efforts to include middle-income children and helped support placement of television and radio advertisements, production of a new public service announcement, enhanced public relations activities, and administration of the 2003 *California Children’s Healthy Eating and Exercise Practices Survey*.

The *Campaign* realized substantial gains in participation and reach, increasing teacher participation by 46 percent and children’s exposure to educational and promotional activities by 49 percent over the previous year. CDFA also dedicated a portion of their Specialty Crop Block Grant for activities with the Produce for Better Health Foundation, the industry arm of the National 5 A Day Program.

- Since the early 1990s, CPNS has worked closely with the **California Department of Education**, including the joint design and launch of the *5 a Day—Power Play! Campaign* in 1993 and support of *Network*-funded school districts through the recent LEAF grants, which helped establish and implement high-impact nutrition-related policy changes.

- Since 1996, CPNS has operated in very close collaboration with the **California Department of Social Services**, the state agency charged with administering the Food Stamp Program, to reduce food insecurity in families with children.

- CPNS collaborates with **Primary Care and Family Health**, including the WIC program, through its participation in the *Network*. Their activities include a biennial Childhood Obesity Conference, nutrition-related grants to local agencies, and ongoing collaboration on a variety of other projects.



Students promote the *5 a Day* message to their peers.

- California is represented on the **National 5 A Day Partnership**, which includes the **National Cancer Institute**, **United States Department of Agriculture**, **Centers for Disease Control and Prevention**, **American Cancer Society**, **American Heart Association**, and **United Fresh Fruit and Vegetable Association**, among others. In California, an MOU to promote, fruit and vegetable consumption is under development between the **Department of Social Services**, **U.C. Cooperative Extension**, **Department of Education**, **CDFA**, and **WIC**.

- CPNS partners with the **Western Growers Association** (WGA) and other members of the fruit and vegetable industry. CPNS supports WGA’s school garden program and plans and conducts joint promotions.



5 a Day—Power Play! Regional Lead Agencies

Central Coast Region

Community Bridges

Counties: Monterey, San Benito, Santa Cruz

Central Valley Region

U.C. Cooperative Extension, Fresno County

Counties: Fresno, Kern, Kings, Madera, Mariposa, Merced, Tulare

Gold Coast Region

U.C. Cooperative Extension, Ventura County

Counties: San Luis Obispo, Santa Barbara, Ventura

Gold Country Region

Health Education Council

Counties: Alpine, Amador, Calaveras, El Dorado, Inyo, Mono, Placer, Sacramento, San Joaquin, Solano, Stanislaus, Sutter, Tuolumne, Yolo

Inland Empire Region

San Bernardino County Department of Public Health

Counties: Riverside, San Bernardino

Los Angeles Region

U.C. Cooperative Extension, Los Angeles County

County: Los Angeles

North Coast Region

Sonoma County Department of Health Services

Counties: Del Norte, Humboldt, Lake, Mendocino, Napa, Sonoma

Orange County Region

Community Action Partnership of Orange County

County: Orange

San Diego Region

U.C. San Diego, Division of Community Pediatrics

Counties: San Diego, Imperial

San Francisco Bay Region

U.C. Cooperative Extension, Alameda County

Counties: Alameda, Contra Costa, Marin, San Mateo, Santa Clara, San Francisco

Sierra Cascade Region

U.C. Cooperative Extension, Butte County

Counties: Butte, Colusa, Glenn, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, Yuba

School Districts Participating in the Nutrition Network

As of July 2004

ABC Unified
Adelanto Elementary
Alhambra
Alisal Union
Allensworth Elementary
Alpaugh Unified
Alta Vista Elementary
Alvord Unified
Anaheim City
Anderson Valley Unified
Arcata Elementary
Arena Union Elementary
Auburn Union Elementary
Bakersfield City Elementary
Baldwin Park Unified
Bangor Union Elementary
Banning Unified
Barstow Unified
Beardsley Unified
Beaumont Unified
Bellflower Unified
Berkeley Unified
Big Oak Flat-Groveland Unified
Biggs Unified
Blochman Union Elementary
Blue Lake Union Elementary
Borrego Springs Unified
Brawley Elementary
Brea-Olinda Unified
Bridgeville Elementary
Brittan Elementary
Buena Park Elementary
Burrel Union Elementary
Burton Elementary
Cabrillo Unified
Cajon Valley Union
Calaveras Unified
Calexico Unified
Calistoga Joint Unified
Canyon Springs Elementary
Capistrano Unified
Carlsbad Unified
Carpinteria Unified
Caruthers Unified
Casmalia Elementary
Central Unified
Centralia Elementary
Ceres Unified
Chattom Union Elementary
Chico Unified
Chino Valley Unified
Chula Vista Elementary
Clovis Unified
Coalinga-Huron Joint Unified
Colton Joint Unified
Compton Unified
Conejo Unified
Corning Union Elementary
Corona-Norco Unified
Cucamonga Elementary
Cutler-Orosi Unified
Cypress Elementary
Del Norte County Unified
Del Paso Heights Elementary
Desert Sands Unified
Dinuba Unified
Dixon Unified
Dos Palos Oro-Loma Joint Unified
Downey Unified
Ducor Union Elementary
Earlimart Elementary
East Side Union High
Eastern Sierra Unified
El Centro Elementary
El Monte City
El Nido Elementary
El Rancho
Elk Grove Unified
Empire Union

Escondido Union
Elementary
Esparto Unified
Eureka City Unified
Evergreen Union
Elementary
Exeter Union Elementary
Fairfield-Suisun Unified
Farmersville Unified
Firebaugh-Las Deltas Unified
Folsom Cordova Unified
Fontana Unified
Fort Bragg Unified
Fortuna Union Elementary
Fountain Valley Elementary
Fowler Unified
Fresno Unified
Fullerton Elementary
Garden Grove Unified
Gateway Unified
Gerber Union Elementary
Golden Feather Union
Goleta Union Elementary
Grant Joint Union High
Greenfield Union
Gridley Unified
Gustine Unified
Hacienda La Puente Unified
Hawthorne
Hayward Unified
Heber Elementary
Hemet Unified
Hesperia Unified
Hickman Elementary
Holtville Unified
Hot Springs Elementary
Hueneme Elementary
Hughson Unified
Huntington Beach City Elementary
Huntington Beach Union High
Imperial Unified
Irvine Unified
Jefferson Union High
Jurupa Unified
Kelseyville Unified
Kerman Unified
Kernville Union Elementary
Keyes Union
Kings Canyon Joint Unified
Kings River Union Elementary
Klamath-Trinity Joint Unified
Konociti Unified
La Habra City Elementary
La Honda-Pescadero Unified
La Mesa-Spring Valley
Laguna Beach Unified
Lagunitas Elementary
Lake Elsinore Unified
Lakeport Unified
Lamont Elementary
Laton Joint Unified
Lawndale Elementary
Lemon Grove Elementary
Liberty Elementary
Lincoln Unified
Lindsay Unified
Live Oak Unified
Livingston Union
Lodi Unified
Loleta Union Elementary
Lompoc Unified
Long Beach Unified
Los Alamitos Unified
Los Angeles Unified
Los Malinos Unified
Lucerne Elementary
Lucerne Valley Unified
Madera Unified
Magnolia Elementary

Mammoth Unified
Marin City Charter School
Marrieta Valley Unified
Marysville Joint Unified
Mattole Unified
McKinleyville Union
Elementary
Meadows Union
Elementary
Mendota Unified
Menifee Union Elementary
Merced City Elementary
Meridian Elementary
Middletown Unified
Modesto City Elementary
Monrovia Unified
Montebello Unified
Moreno Valley Unified
Mount Diablo Unified
Munson Sultana
National Elementary
Natomas Unified
New Hope Elementary
Newhall Elementary
Newman-Crows Landing Unified
Newport-Mesa Unified
North Sacramento
Elementary
Northern Humboldt Union
High
Norwalk-La Mirada Unified
Oakland Unified
Oakley Union Elementary
Ocean View Elementary
Oceanside Unified
Ontario-Montclair
Orange Unified
Orcutt Union Elementary
Orick Elementary
Orville City Elementary
Oxnard Elementary
Pajaro Valley Unified
Palermo Union
Palm Springs Unified
Palo Verde Unified
Paradise Unified
Parlier Unified
Pasadena Unified
Patterson Joint Unified
Peninsula Union Elementary
Perris Elementary
Pittsburg Unified
Pixley Union Elementary
Placentia-Yorba Linda Unified
Planada Elementary
Pleasant View Elementary
Pomona Unified
Porterville Unified
Raisin City Elementary
Ravenswood City
Elementary
Red Bluff Union Elementary
Redlands Unified
Redwood City Elementary
Rialto Unified
Rio Del Elementary
Rio Elementary
Rio Linda Union Elementary
Riverbank Unified
Riverdale Joint Unified
Riverside Unified
Robla Elementary
Romoland Unified
Roseland Elementary
Rosemead
Rowland Unified
Sacramento City Unified
Saddleback Valley Unified
Salida Unified
Salinas City Elementary
San Bernardino City
Unified

San Diego City Unified
San Francisco Unified
San Gabriel Unified
San Jacinto Unified
San Juan Unified
San Lorenzo Valley Unified
San Marcos Unified
San Pasqual Valley Unified
San Ysidro Elementary
Sanger Unified
Santa Ana Unified
Santa Barbara Elementary
Santa Cruz City
Santa Maria Joint Union
High
Santa Maria-Bonita
Santa Rosa Elementary
Sausalito Elementary
Savanna Elementary
Selma Unified
Sequoia Union High
Silver Valley Unified
Snowline Joint Unified
South Bay Union
Elementary (Eureka)
South Bay Union
Elementary (Imperial
Beach)
South Fork Union
Elementary
Southern Humboldt Joint
Unified
Stanislaus Union
Elementary
Stockton Unified
Strathmore Union
Elementary
Summerville Union
Sunnyside Union
Elementary
Sylvan Union Elementary
Temecula Valley Unified
Terra Bella Union
Elementary
Thermalito Union
Tracy Joint Unified
Traver Joint Elementary
Travis Unified
Tulare City Elementary
Turlock Joint Elementary
Tustin Unified
Twain Harte-Long Barn
Union
Ukiah Unified
Upper Lake Union
Elementary
Vacaville Unified
Val Verde Unified
Vallejo City Unified
Ventura Unified
Victor Elementary
Visalia Unified
Vista Unified
Washington Unified
Waukena Joint Union
Elementary
Weaver Union
West Contra Costa Unified
West Fresno Elementary
Westminster Elementary
Westmorland Union
Elementary
Windsor Unified
Woodlake Union
Elementary
Woodlake Union High
Woodland Joint Unified
Woodville Elementary
Yuba City Unified